

XXXIX.—*On the Evidence of the former Existence of Struthious Birds distinct from the Dodo in the islands near Mauritius.* By H. E. STRICKLAND, Esq., M.A. \*

It is well known that Leguat, a French Protestant refugee, who for more than two years (from 1691 to 1693) resided in the island of Rodriguez, near Mauritius, described a bird under the name of *le Solitaire*, which Latham considered to be allied to, but distinct from, the Dodo, and which Gmelin denominated *Didus solitarius*. Later authors have supposed Leguat's bird to be either altogether fictitious, or to be founded on an imperfect description of the true Dodo, *Didus ineptus*, Linn., of whose former existence in the island of Mauritius there is now no dispute. Considering, however, that Leguat was a man of education, and that the rest of his narrative bears intrinsic proofs of veracity, there is no reason to doubt the general accuracy of his description of the *Solitaire*; and if this be admitted, it follows that his bird was distinct, generically as well as specifically, from the Dodo.

The *Solitaire*, as described and figured by Leguat, must have differed from the Dodo in the following respects:—

1. The beak is stated to resemble that of a turkey, except in being rather more curved. Leguat's figure corresponds with this description, and exhibits a moderate-sized gallinaceous-formed beak, totally unlike that which we know the Dodo to have possessed.
2. The *Solitaire* is said to have had hardly any tail, whereas the Dodo was depicted with an arched tail, like that of the ostrich.
3. The *Solitaire* is said to be longer in the leg ("plus haut montée") than a turkey, while the Dodo was a very short-legged bird, as shown by the specimens in the British and Oxford Museums.
4. The *Solitaire* carried its neck erect, and this member was said to be longer in proportion than that of a turkey. But the Dodo is depicted with a short, thick and curved neck, corresponding with the massive proportions of its head.
5. Though unable to fly, the wings of the *Solitaire* appear to have been more developed than in the Dodo, as they were enlarged at the end into a knob the size of a musket-ball, with which the bird attacked its enemies.

6. The female *Solitaire* is stated to have a kind of band (probably composed of feathers) at the upper part of the beak, resembling a widow's cap; but in the Dodo the whole face was naked.

It seems then sufficiently evident, that as late as the year 1693 the island of Rodriguez was inhabited by a large species of bird distinct from the Dodo of Mauritius, and now exterminated. This bird was unable to fly; and Leguat, who gives a minute description of its habits, mentions the remarkable circumstance that it lays one egg on a heap of palm-leaves a foot and a half high, a character which possibly indicates an affinity to *Talegalla* and the *Megapodiinae* of Australia.

\* From the Proceedings of the Zoological Society, April 23, 1844.

The *Solitaire* of Rodriguez seems not to have been mentioned by any other author than Leguat, and we may presume that the species was exterminated within a few years after his visit.

There is evidence however that other apterous birds of this anomalous class formerly existed in the adjacent island of Bourbon. In the library of the Zoological Society is a manuscript presented by that active naturalist the late C. Telfair, Esq., who during his residence in Mauritius collected many valuable scientific and historical documents. This MS. is entitled 'Journal et Relation des Voyages faits par le S<sup>r</sup> D. B. aux îles Dauphine ou Madagascar et de Bourbon ou Mascarenne.' 1669. The author, who seems to have been a very intelligent observer, speaking of the birds of the island of Bourbon, has the following passage:—

“Oiseaux de terre et leurs noms.

“*Solitaires* : ces oiseaux sont nommés ainsi, parce qu'ils vont toujours seuls. Ils sont gros comme une grosse Oye, et ont le plumage blanc, noir à l'extrémité des ailes et de la queue. À la queue il y a des plumes approchantes de celles d'Autruche, ils ont le col long, et le bec fait comme celui des bécasses, mais plus gros, les jambes et pieds comme poulets d'Inde. Cet oiseau se prend à la course, ne volant que bien peu.

“*Oiseaux bleus*, gros comme les *Solitaires*, ont le plumage tout bleu, le bec et les pieds rouges, faits comme pieds de poules, ils ne volent point, mais ils courent extrêmement vite, tellement qu'un chien a peine d'en attraper à la course ; ils sont très bons.”

The author then proceeds to describe the wild pigeons and other birds of Bourbon.

It appears then that about the year 1670 the island of Bourbon was inhabited by two species of Struthious birds, one of which was called *Solitaire*, and the other *Oiseau bleu*. The *Solitaire* of Bourbon seems however to have been distinct from, though probably allied to, the bird of that name in Rodriguez. Its plumage is stated to have been white, with the wings and tail terminated with black, whereas Leguat describes the Rodriguez bird as greyish and brown. The Bourbon species further differed in having a tail similar to that of an ostrich, and in the beak being lengthened, “like that of a woodcock, but stouter,” in which respect it must have resembled the Apteryx of New Zealand. The phrase “ne volant que bien peu” would seem to imply that the bird possessed some powers of flight, though possibly it may only mean that when hard pressed the bird aided its progress by flapping the wings, or by springing into the air for a short distance.

The *Oiseaux bleus* seem to have been a distinct species both from the Dodo and from the *Solitaires* of Bourbon and of Rodriguez, and to have been wholly unable to fly, but possessed, like the Apteryx, of great cursorial powers.

We are then justified in believing, from the relations of authors apparently deserving of credit, that the three contiguous islands of Mauritius, Bourbon and Rodriguez were formerly inhabited by at least four distinct species of birds, deprived, or nearly so, of the power of flight, and more nearly allied in structure to the Apteryx of New Zealand than to any other existing genus of birds. And if the ac-

count given by Cauche of a tridactylous and apterous bird in Mauritius, called *Oiseau de Nazarette*, be correct, we must believe in the former existence of a fifth species of the same anomalous family.

Nor need we be surprised at the supposition that the species allied to the Dodo may have been thus numerous, when we recollect that Prof. Owen has already shown that no less than five species of that ornithic wonder, the *Dinornis*, inhabited New Zealand at a very recent date, and were doubtless contemporaries of the still surviving *Apteryx*. Still less should we wonder at the speedy extinction of these birds after man took possession of the Mauritian archipelago. Confined to very small islands, unable to escape from their enemies by flight, and highly esteemed for food, they soon experienced the same fate as that of the *Dinornis*, a fate which will shortly overtake the unprotected *Apteryx*\*.

Having thus shown that there is good historical evidence of the former existence of several Struthious or *Didiform* birds in the Mauritian group of islands, we may inquire whether any actual remains of these deceased species are still attainable. On this point I must be content rather to excite inquiry than to supply information. Of the Dodo, as is well known, we possess an entire head, and the feet of two individuals; but of the other birds above referred to, no relics have yet been identified. M. Quoy, however, assured M. de Blainville that the bones in the Paris Museum which Cuvier supposed to belong to the Dodo, were brought, not from Mauritius, but from Rodriguez; and it is therefore probable, as supposed by M. de Blainville, that they may have belonged to the *Solitaire* of Leguat. There are, too, certain bones from Rodriguez presented by Mr. Telfair to this Society (Zool. Proceedings, Part I. p. 31); and in the Andersonian Museum at Glasgow there are also some so-called "Dodo's bones from Mauritius." All these materials should be submitted to careful examination; and we may feel confident that if Prof. Owen, who has so skilfully demonstrated the affinities of the *Dinornis* from a few fragments of the skeleton, were to take these materials in hand, he would soon deduce some valuable results, whether positive or negative, from the investigation.

Much light also might probably be thrown on the subject if naturalists residing in Mauritius, Bourbon and Rodriguez would endeavour to obtain further evidence. The alluvia of streams, the soil on the floors of caverns, and even the ancient mounds of rubbish near towns and villages, should be carefully searched, and every fragment of bone preserved. We may hope that the success which has attended such researches in New Zealand will stimulate the naturalists of Mauritius to similar efforts, and that the *Solitaires* and *Oiseaux bleus* will ere long, like the Dodo and the *Dinornis*, take their just rank in our systems of ornithology.

\* It is probable that in 1693, when Leguat visited Mauritius, the Dodo had been extinct a considerable time. He makes no mention of any such bird, but remarks "L'île était autrefois toute remplie d'Oyes et de Canards sauvages, de Poules d'eau, de Gelinottes, de Tortues de mer et de terre; mais tout cela est devenu fort rare;" showing that at that period, when the Dutch had occupied Mauritius for nearly a century, civilization had made great inroads on the fauna of the island.